

Patent Claims

1. A method for repairing a damaged and/or aged component of a turbomachine which is at least partially made of a composite 5 ceramic material, having the steps of:

dissolving the joint of the component,
mechanically processing the component,

renewing the ceramic matrix of the component and restoring the joint,

10 the site (8) to be repaired, which has resulted from the mechanical processing of the component (1), being filled with a single monobloc insert (11).

2. The method as claimed in claim 1, characterized in that 15 after the step of dissolving the joint, the component is decoated before further processing.

3. The method as claimed in claim 1 or 2, characterized in that weaving and/or recoating of the fibers is carried out before 20 the infiltration step.

4. The method as claimed in one of claims 1 to 3, characterized in that the component is sintered before the step of restoring the joint.

25 5. The method as claimed in one of claims 1 to 4, characterized in that the component is coated before the step of restoring the joint.

6. The method as claimed in one of claims 1 to 5, characterized in that surface protection is provided after the step of restoring the joint.

5 7. A method for repairing a damaged and/or aged component of a turbomachine which is at least partially made of a composite ceramic material, having the steps of:
leaching out the matrix and/or mechanically processing the component,
10 infiltration to restore and/or renew the ceramic matrix of the component, and
sintering the component.

8. The method as claimed in claim 7, characterized in that
15 weaving and/or recoating of the fibers is carried out after the step of leaching out the matrix and before the infiltration step.

9. The method as claimed in one of the preceding claims, characterized in that a gas turbine is used as the turbomachine.

20 10. The method as claimed in claim 9, characterized in that the gas turbine is overfired.